

Fig. 1
 Ad Insertion Overview

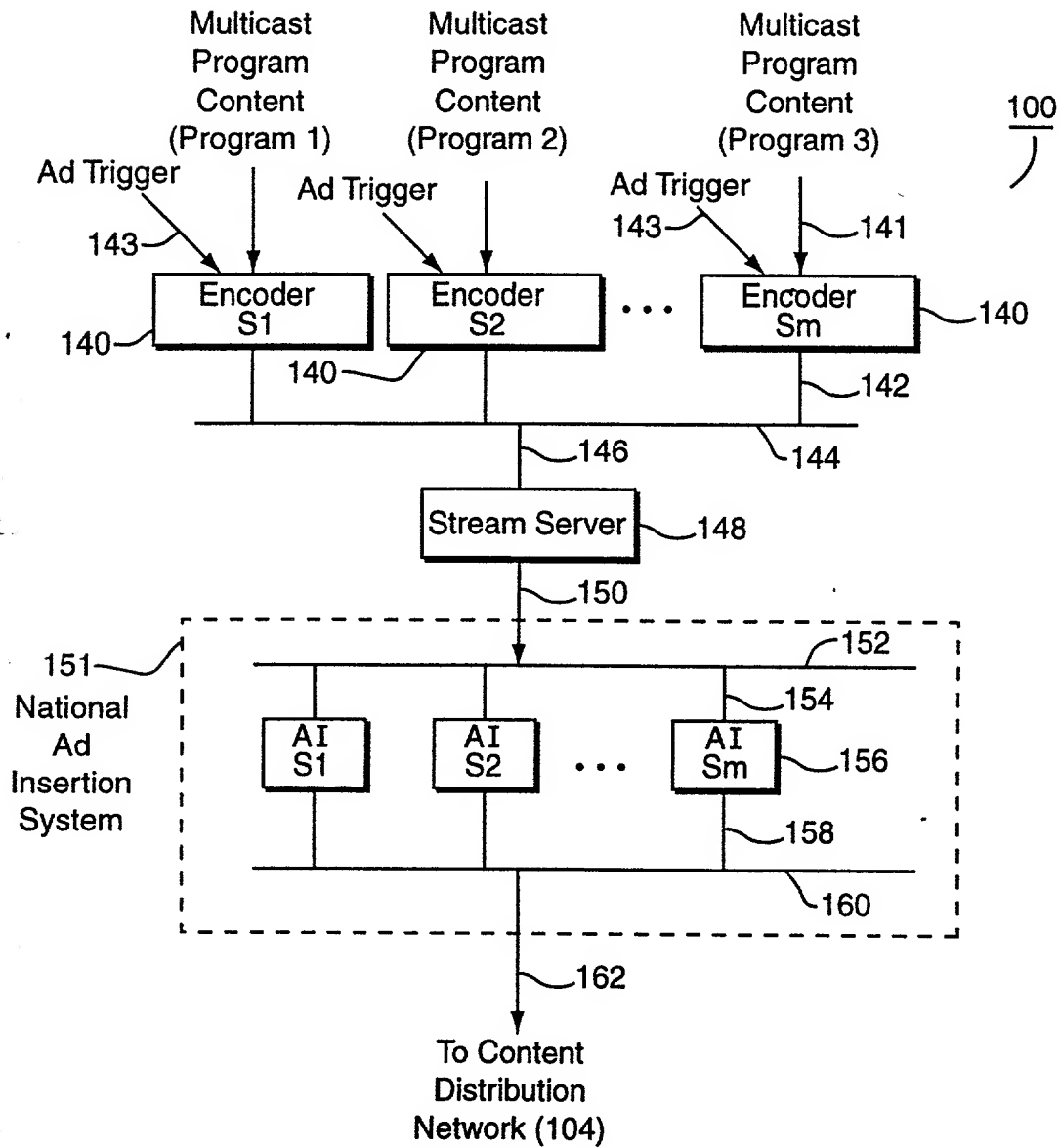


Fig. 2

Example Multicast Content Generation System and per Stream
Arrangement National Ad Insertion System

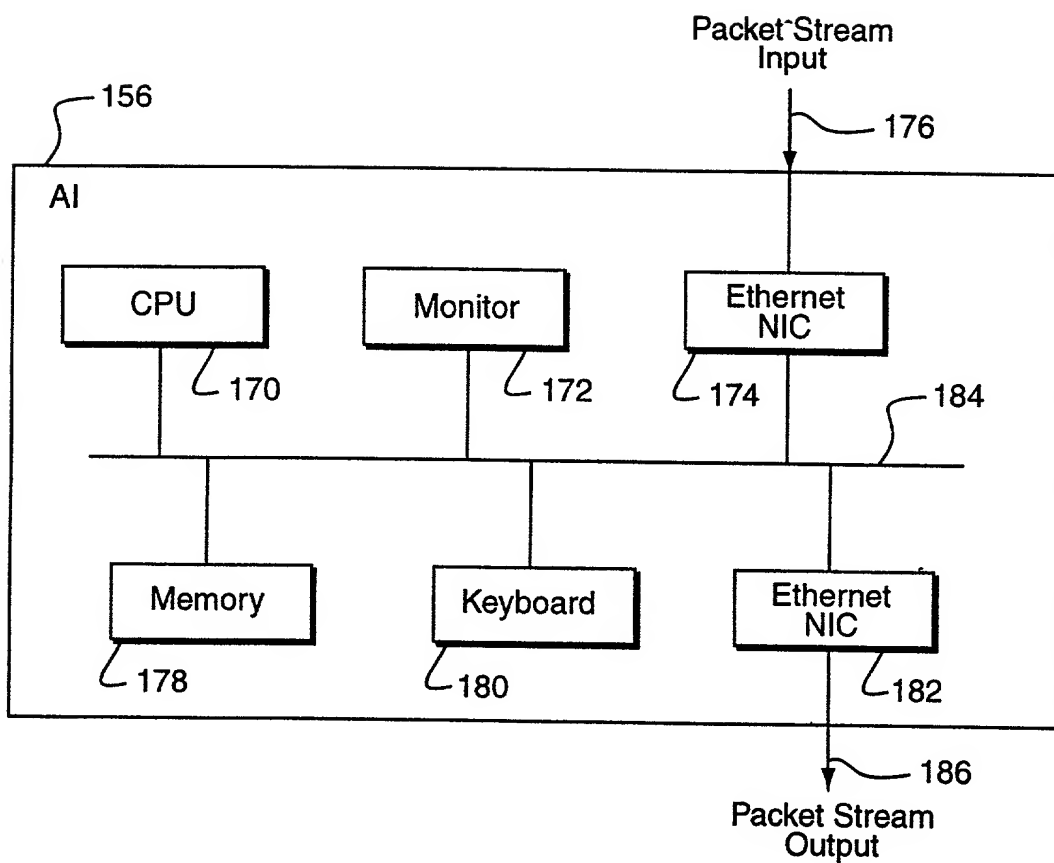


Fig. 3

Example Ad Insertion Hardware/
Packet Replication Hardware
Arrangement

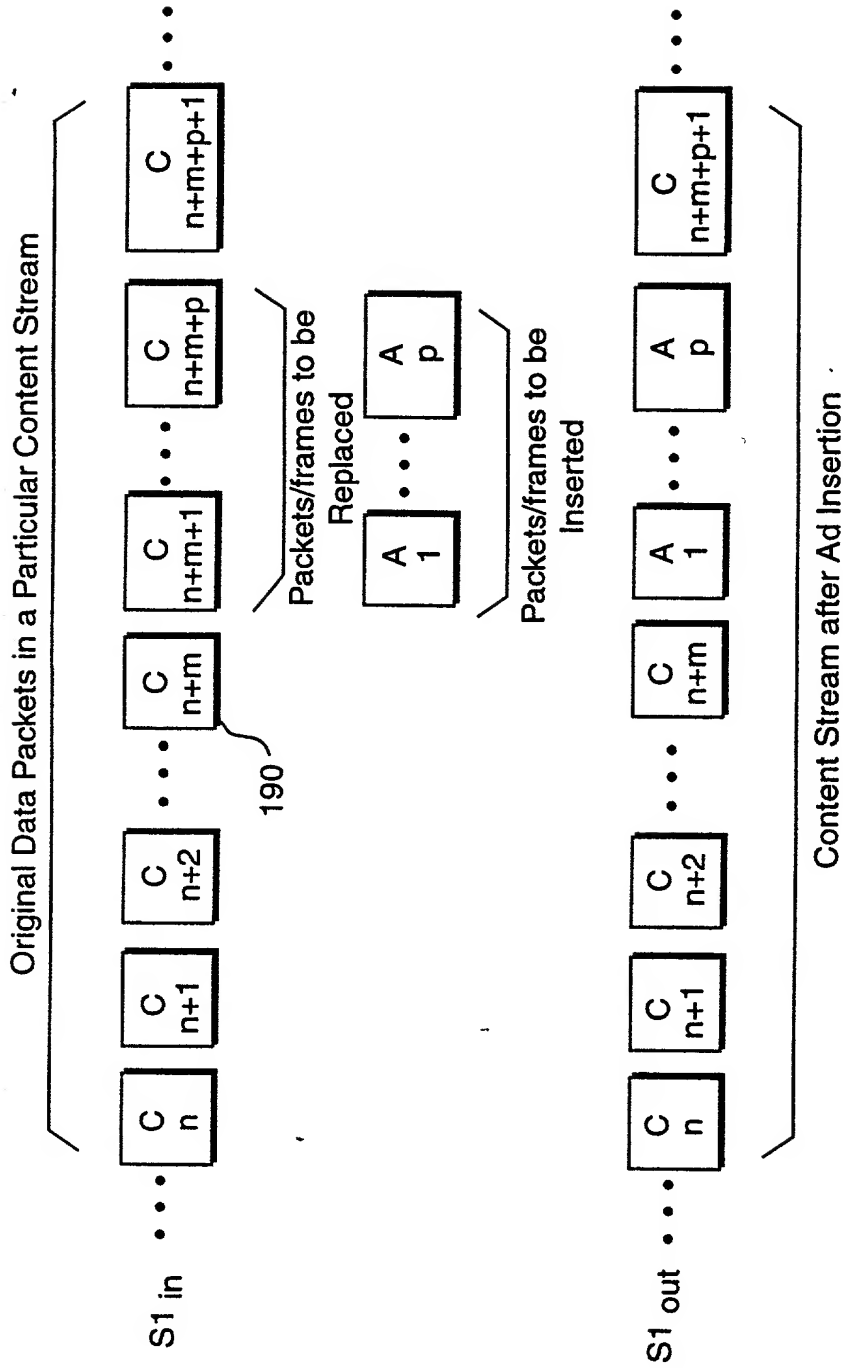


Fig. 4

Multicast Data Stream Content Insertion Example

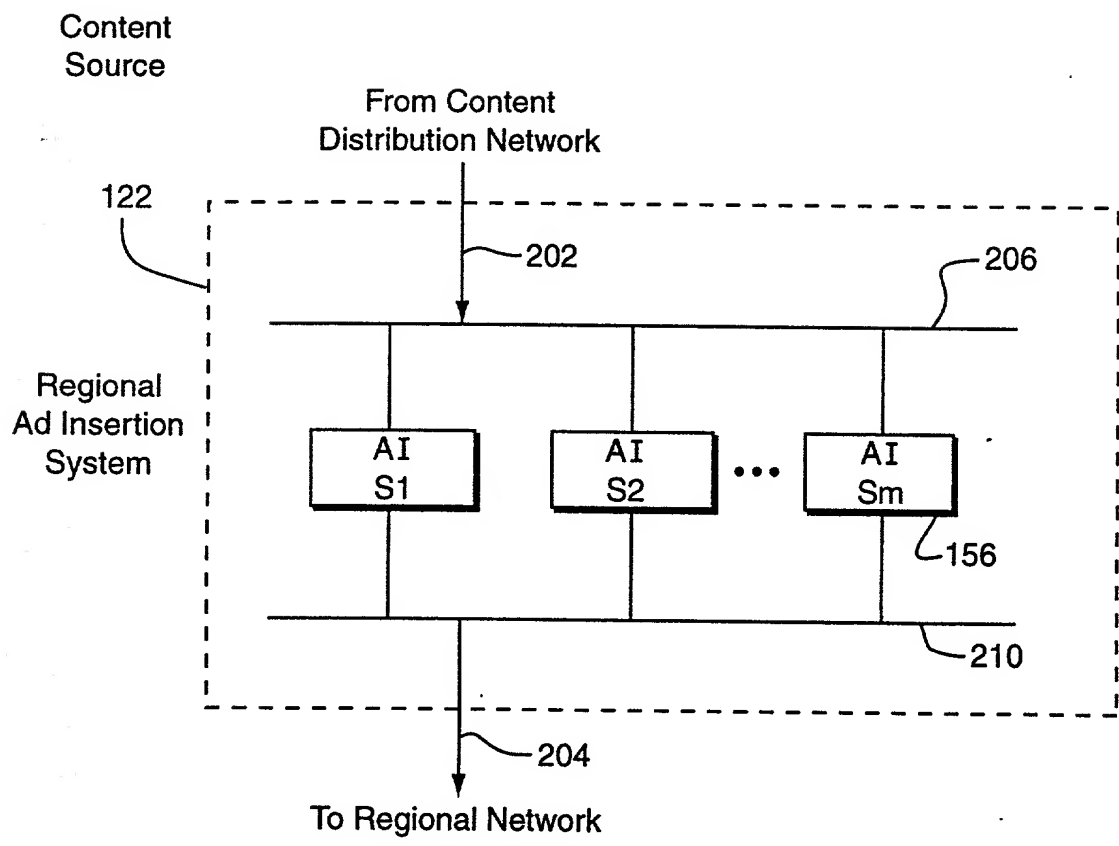


Fig. 5
Example Regional Ad Insertion System Arrangement

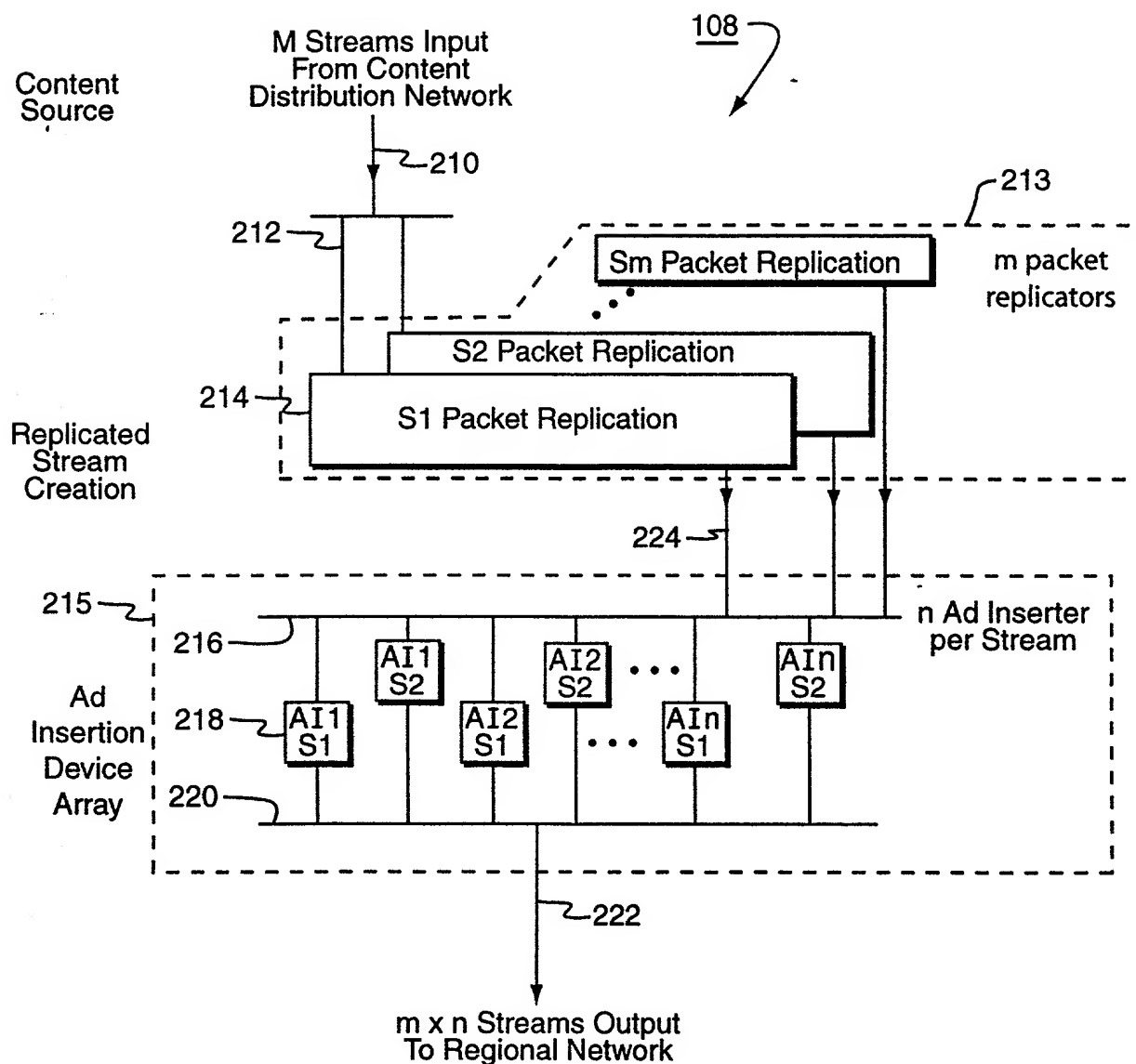


Fig. 6
Example IP Multicast Demographic Ad Insertion/
Generation System Arrangement

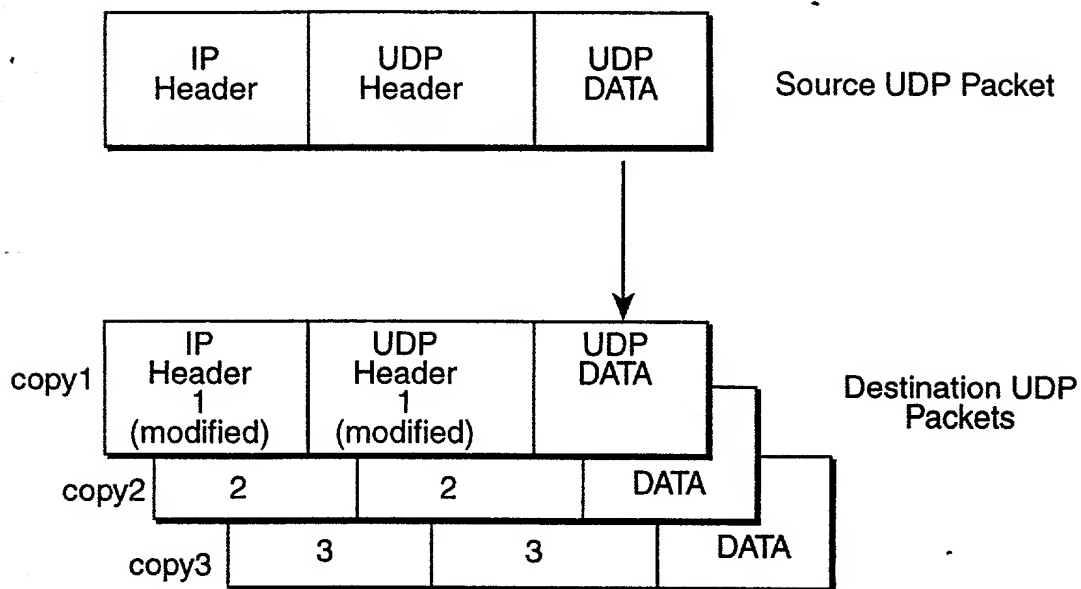


Fig. 7

Packet Replication Example with
Group Address (Destination) Change

Stream 1			
IP Group Address 239.241.3.4 Port 32000			
Sex	Age Group	Port	Demographic Offset
M	0..18	32001	1
M	18..34	32002	2
M	34..	32003	3
F	0..18	32004	4
F	18..34	32005	5
F	34..	32006	6
Stream 2			
IP Group Address 239.241.3.4 Port 32007			
Sex	Age Group	Port	Demographic Offset
M	0..18	32008	1
M	18..34	32009	2
M	34..	32010	3
F	0..18	32011	4
F	18..34	32012	5
F	34..	32013	6

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Fig. 8

Example Demographic Address Mapping